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(FILE 'HOME' ENTERED AT 18:06:56 ON 07 AUG 2001)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 18:07:06 ON 07 AUG 2001

L1 710 S AZADIRACHTIN?
L2 116 S AZADIRACHTIN? A
L3 17 S AZADIRACHTIN? B
L4 911 S SORBITAN (L) TRIOLEATE
L5 283 S L4 (L) (PEG OR POLYOXYETHYLENE OR POLYETHYLENEOXIDE OR POLYOX
L6 77 S L4 (L) (POLYETHYLENEGLYCOL OR POLYETHYLENE GLYCOL OR POLY ETH

FILE 'REGISTRY' ENTERED AT 18:09:58 ON 07 AUG 2001

L7 2 S 11141-17-6 OR 95507-03-2
E AZADIRACHTIN/CN
L8 12 S E3,E4,E6-E16
L9 12 S L7,L8
L10 70 S (16458.1.3 AND 36597.1.3)/RID
L11 64 S L10 NOT L9
SEL RN L7
L12 16 S E1-E2/CRN
L13 18 S L7,L12
L14 58 S L9,L11 NOT L13
L15 1 S 9005-70-3

FILE 'HCAPLUS' ENTERED AT 18:13:51 ON 07 AUG 2001

L16 680 S L15
L17 448 S TWEEN 85 OR EMSORB OR POLYSORBATE 85
L18 1007 S L5,L6,L16,L17
L19 753 S L1-L3,L13
L20 80 S L14
L21 1 S L18 AND L19,L20
E VEGETABLE OIL/CT
E E10+ALL
L22 1508 S E1
L23 3436 S E2
L24 19368 S VEGETABLE (L) OIL
L25 3610 S SESAME (L) OIL
L26 583 S SESAME (L) OIL (L) SEED
L27 7 S L19,L20 AND L22-L26
L28 0 S L27 AND (SURFACTANT OR SURFACE ACTIVE)
L29 1 S L27 AND EPOXIDE
L30 8 S L21,L27,L29
E DAMARLA S/AU
L31 1 S E4
E SRIDHAR S/AU
L32 203 S E3,E4,E11,E12
E RAMAN K/AU
L33 204 S E3-E16
E GOPINATHAN M/AU
L34 6 S E3,E5,E8
E MAMBULLY /AU
E CHANDRASEKARAN/AU
L35 6 S E26,E29
L36 98 S E49
E KRISHNASAMI/AU
E SRINIVASA/AU
L37 6 S E3
L38 7 S E56
E SREENIVASA/AU
L39 4 S E21
E RAO/AU
L40 1 S E3
E RAO D/AU
L41 48 S E3

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L42 53 S E114
L43 2 S E132
L44 13 S E134
E RAO DAMARLA/AU
E RAO S/AU
L45 102 S E3
L46 3 S E30
E RAO SREEN/AU
L47 7 S E4-E7
L48 1 S L19, L20 AND L31-L47
L49 1 S ?AZADIRACH? AND L31-L47
L50 9 S L48, L49, L30

=> fil hcaplus
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FILE COVERS 1947 - 7 Aug 2001 VOL 135 ISS 7
FILE LAST UPDATED: 6 Aug 2001 (20010806/ED)

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=> d 150 all hitstr tot

L50 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:525899 HCAPLUS
TI Nonaqueous compositions for administration of pharmaceuticals or agrochemicals or biocides
IN Campbell, William R.; Omilinsky, Barry A.
PA Blue Ridge Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 5, 18
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051028	A2	20010719	WO 2001-US100876	20010112
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-483084 A 20000114

AB The present invention provides non-aq. compns. which comprise a pharmacol. or biol. active compd., an emulsifier, a polyol, and benzyl alc. The compns. are useful for administering the pharmacol. or biol. active compds. which they contain to animals, plants, or ground surfaces. In preferred embodiments, the pharmacol. or biol. active compds. may be water-insol. or water-labile. The compns. of the present invention allow these compds. to be solubilized and conveniently transported to a site of application in a non-aq. form, and then dild. in an aq. soln. In a particularly preferred embodiment, the compd. is ivermectin and is administered in the drinking water of poultry. The compns. of the present invention may also contain multiple pharmacol. or biol. active compds. which are administrated simultaneously. The present invention also provides methods of administering the compds. In the most preferred embodiment, the compds. may be administered in the drinking water of animals to be treated with the pharmacol. or biol. active compd. In other embodiments, the compns. may be topically applied to the animals or plants to be treated, or sprayed onto plants, animals, or a ground surface to be treated with the active compds. A nonaq. formulation of ivermectin was prep'd. and dild. into the drinking water of male turkeys. The formulation was effective in completely eliminating any visible signs of roundworm infestation.

ST nonaq compn pharmaceutical biocide

IT INDEXING IN PROGRESS

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anise; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cedarwood; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(citronella; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eucalyptus; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Fats and Glyceridic oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(margosa; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Agrochemicals

Emulsifying agents

Parasiticides

Pesticides

(nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

IT Canola oil

Castor oil

Jojoba oil

Polysiloxanes

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU

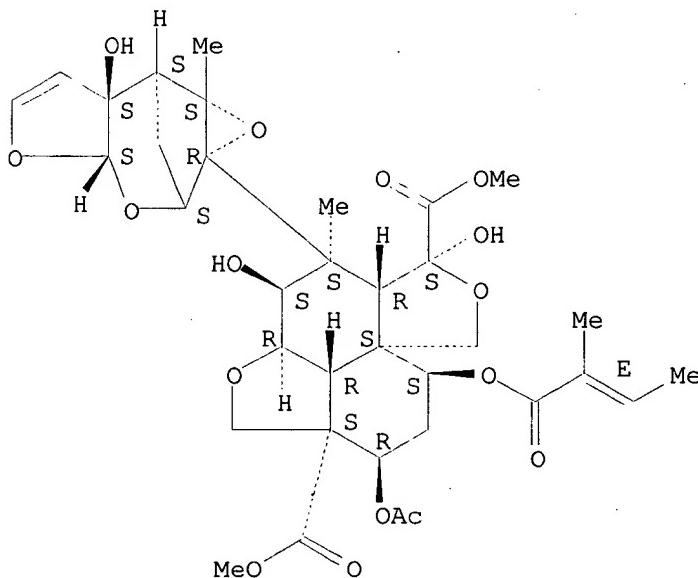
(Therapeutic use); BIOL (Biological study); USES (Uses)

(nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

- IT Essential oils
 RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (orange, sweet; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT Alcohols
 RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyhydric; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT Drug delivery systems
 (solns.; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT 60-51-5, Dimethoate 61-82-5, Amitrole 63-25-2, Carbaryl 65-85-0D, Benzoic acid, derivs. 72-43-5, Methoxychlor 77-06-5, Gibberellic acid 78-70-6, Linalool 84-65-1, Anthraquinone 85-00-7, Diquat 93-65-2, Mecoprop 97-53-0, Eugenol 104-55-2, Cinnamaldehyde 106-24-1, Geraniol 115-29-7, Endosulfan 115-32-2, Dicofol 120-72-9, Indole 121-75-5, Malathion 122-34-9, Simazine 122-59-8D, Phenoxyacetic acid, derivs. 133-06-2, Captan 134-20-3, Methyl anthranilate 148-79-8, Thiabendazole 301-12-2, Oxydemeton methyl 314-40-9, Bromacil 330-54-1, Diuron 330-55-2, Linuron 333-41-5, Diazinon 404-86-4, Capsaicin 709-98-8, Propanil 732-11-6, Phosmet 834-12-8, Ametryn 950-37-8, Methidathion 1071-83-6, Glyphosate 1194-65-6, Dichlobenil 1563-66-2, Carbofuran 1582-09-8, Trifluralin 1610-18-0, Prometon 1689-84-5, Bromoxynil 1897-45-6, Chlorothalonil 1912-24-9, Atrazine 1918-02-1, Picloram 2593-15-9, Etridiazole 2921-88-2, Chlорpyrifos 4685-14-7, Paraquat 5234-68-4, Carboxin 5902-51-2, Terbacil 8018-01-7, Mancozeb 10004-44-1, Hymexazol 11141-17-6,
Azadirachtin 13356-08-6, Fenbutatin oxide 13684-56-5, Desmedipham 13684-63-4, Phenmedipham 17804-35-2, Benomyl 19044-88-3, Oryzalin 20354-26-1, Methazole 21087-64-9, Metribuzin 21725-46-2, Cyanazine 22781-23-3, Bendiocarb 23103-98-2, Pirimicarb 23135-22-0, Oxamyl 23422-53-9, Formetanate hydrochloride 23564-05-8, Thiophanate methyl 25057-89-0, Bentazon 29091-21-2, Prodiamine 30560-19-1, Acephate 34014-18-1, Tebuthiuron 35367-38-5, Diflubenzuron 35554-44-0, Imazalil 37324-45-1, Dihydroazadirachtin 38669-41-9D, Phenoxypropionic acid, derivs. 38669-42-0D, derivs. 40487-42-1, Pendimethalin 42509-80-8, Isazofos 42874-03-3, Oxyfluorfen 43121-43-3, Bayleton 50594-66-6, Acifluorfen 51235-04-2, Hexazinone 51276-47-2, Glufosinate 51338-27-3, Diclofop methyl 52645-53-1, Permethrin 55219-65-3, Triadimenol 55335-06-3, Triclopyr 55512-33-9, Pyridate 57837-19-1, Metalaxyl 57966-95-7, Cymoxanil 59756-60-4, Fluridone 60207-90-1, Propiconazole 64902-72-3, Chlorsulfuron 66215-27-8, Cyromazine 66230-04-4, Esfenvalerate 66441-23-4, Fenoxaprop ethyl 68359-37-5, Cyfluthrin 69806-40-2, Haloxyfop methyl 72178-02-0, Fomesafen 74051-80-2, Sethoxydim 74115-24-5, Clofentezine 74223-56-6, Sulfometuron 76578-12-6, Quizalofop 77501-63-4, Lactofen 77732-09-3, Oxadixyl 78587-05-0, Hexythiazox 79241-46-6 79277-67-1, Thifensulfuron 79510-48-8, Metsulfuron 79538-32-2, Tefluthrin 81334-34-1, Imazapyr 81335-37-7, Imazaquin 81335-77-5, Imazethapyr 81777-89-1, Clomazone 82558-50-7, Isoxaben 82657-04-3, Bifenthrin 99129-21-2, Clethodim 99283-00-8, Chlorimuron 99283-01-9, Bensulfuron 100728-84-5, Imazamethabenz 106040-48-6, Tribenuron 111991-09-4, Nicosulfuron 112410-23-8, Tebufenozide 113036-87-6, Primisulfuron 119446-68-3, Difenoconazole 131341-86-1, Fludioxonil 131860-33-8, Azoxystrobin 138261-41-3, Imidacloprid
 RL: AGR (Agricultural use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT 70288-86-7, Ivermectin
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

- IT 57-55-6, Propylene glycol 100-51-6, Benzenemethanol 872-50-4, N-Methylpyrrolidone 9005-64-5, polysorbate 20 9005-65-6, polysorbate 80 9005-70-3, polysorbate85
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides).
- IT 57-62-5, Chlortetracycline 57-68-1, Sulfamethazine 59-40-5, Sulfaquinoxaline 60-54-8, Tetracycline 79-57-2, Oxytetracycline 110-85-0, Piperazine 114-07-8, Erythromycin 121-25-5, Amprolium 122-11-2, Sulfadimethoxine 154-21-2, Lincomycin 1401-69-0, Tylosin 1404-04-2, Neomycin 1405-87-4, Bacitracin 1672-91-9, Sulfachlorpyrazine 1695-77-8, Spectinomycin 51570-36-6, Milbemycin 71751-41-2, Abamectin 73989-17-0, Avermectin 98105-99-8, Sarafloxacin 117704-25-3, Doramectin
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT 11141-17-6, Azadirachtin
 RL: AGR (Agricultural use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- RN 11141-17-6 HCPLUS
- CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



- IT 9005-70-3, polysorbate85
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- RN 9005-70-3 HCPLUS
- CN Sorbitan, tri-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L50 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS
 AN 2000:680741 HCAPLUS
 DN 133:330888
 TI Response of two lacewing species to biorational and broad-spectrum insecticides
 AU Schuster, David J.; Stansly, Philip A.
 CS Gulf Coast Research & Education Center, University of Florida, Bradenton, FL, 34203, USA
 SO Phytoparasitica (2000), 28(4), 297-304
 CODEN: PHPRA2; ISSN: 0334-2123
 PB Priel Publishers
 DT Journal
 LA English
 CC 5-4 (Agrochemical Bioregulators)
 Section cross-reference(s): 4
 AB Green lacewings, including *Chrysoperla rufilabris* (Burmeister) and *Ceraeochrysa cubana* (Hagen), are predators of small, soft-bodied insects including whiteflies. The silverleaf whitefly, *Bemisia argentifolii* Bellows & Perring [formerly *B. tabaci* (Gennadius) strain B], is an important pest of agronomic, **vegetable** and ornamental crops. Practical use of these lacewings as biol. control agents would be facilitated by better understanding of their responses to both biorational (selective) and broad-spectrum insecticides. The topical and residual toxicity of **azadirachtin** (Azatin-EC), insecticidal soap (M-Pede), paraffinic oil (Sunspray Ultra-Fine Spray Oil) and the pyrethroid bifenthrin (Brigade) to eggs, larvae and adults of the lacewings were studied in the lab. Larvae of *C. cubana* were much more tolerant to residues of bifenthrin than was *C. rufilabris* and were somewhat more tolerant to topically applied soap. At normal field concns., **azadirachtin** (0.005%, by wt a.i.), paraffinic oil (1.0% by vol.) and soap (1.0% by vol.) were not toxic to larvae or adults of either species either topically or residually. Oil was toxic topically to eggs but **azadirachtin** and soap were not. Bifenthrin was toxic topically and residually to larvae and adults but was not so toxic to eggs as was oil. Thus, selectivity of all materials tested was relative to lacewing species and life stage. The relative tolerance to insecticide residues exhibited by *C. cubana* larvae may be related to its trash-carrying habit, suggesting that use of trash-carrying chrysopids in place of non-trash carriers for augmentative biol. control would increase options for non-disruptive chem. intervention when necessary.
 ST insecticide **azadirachtin** soap paraffinic oil bifenthrin toxicity lacewing; *Chrysoperla* *Ceraeochrysa* insecticide toxicity *Bemisia* IPM
 IT Paraffin oils
 RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (response of lacewing species to)
 IT Insecticides
 Integrated pest control
 (response of lacewing species to biorational and broad-spectrum insecticides)
 IT *Ceraeochrysa cubana*
Chrysoperla rufilabris
 (response to biorational and broad-spectrum insecticides of)
 IT Silverleaf whitefly
 (response to biorational and broad-spectrum insecticides of lacewings, predators of)
 IT Pesticides
 (toxicity; response of lacewing species to biorational and broad-spectrum insecticides)
 IT 11141-17-6, **Azadirachtin** 82657-04-3, (Brigade)
 158319-17-6, (M-Pede)
 RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (response of lacewing species to)

RE.CNT 33

- RE
- (1) Breene, R; Biol Control 1992, V2, P9
 - (2) Butler, G; Fla Entomol 1993, V76, P161 HCAPLUS
 - (3) Cahill, M; Bull Entomol Res 1996, V86, P343 HCAPLUS
 - (4) Carvalho, G; Cienc Prat 1994, V18, P49 HCAPLUS
 - (5) Coudriet, D; Environ Entomol 1985, V14, P776
 - (6) Dean, D; Environ Entomol 1995, V24, P1562
 - (7) Dean, D; Ph D dissertation, Univ of Florida 1994
 - (8) Denholm, I; Bemisia 1995: Taxonomy, Biology, Damage, Control and Management 1996, P577
 - (9) Dimetry, N; Anz Schadlingskde Pflanzenschutz Umweltschutz 1996, V69, P140
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 - (13) Hassan, S; Z Angew Entomol 1988, V105, P321
 - (14) Hunter, C; Environ Monitoring and Pest Mgmt 1997
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 - (18) Liu, T; J Appl Entomol 1996, V120, P369
 - (19) Liu, T; J Econ Entomol 1995, V88, P564 HCAPLUS
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 - (31) Stansly, P; Proc Florida Tomato Institute, Vegetable Crops Special Ser SS HOS 1992, V1, P54
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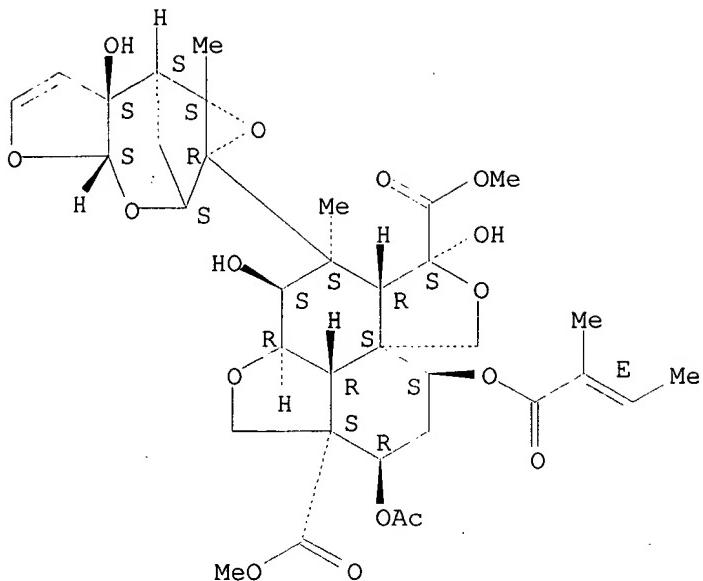
IT 11141-17-6, Azadirachtin

RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (response of lacewing species to)

RN 11141-17-6 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,
 10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-
 butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-
 7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl
 ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



L50 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS
 AN 2000:573337 HCAPLUS
 DN 133:248346

TI Comparative laboratory toxicity of neem pesticides to honey bees (Hymenoptera: Apidae), their mite parasites Varroa jacobsoni (Acari: Varroidae) and acarapis woodi (Acari: Tarsonemidae), and brood pathogens Paenibacillus larvae and Ascophphaera apis

AU Melathopoulos, Adony P.; Winston, Mark L.; Whittington, Robin; Smith, Tasha; Lindberg, Chris; Mukai, Amy; Moore, Margo

CS Department of Biological Sciences, Simon Fraser University, Burnaby, BC, V5A 1S6, Can.

SO J. Econ. Entomol. (2000), 93(2), 199-209
 CODEN: JEENAI; ISSN: 0022-0493

PB Entomological Society of America

DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 4

AB Lab. bioassays were conducted to evaluate neem oil and neem ext. for the management of key honeybee (*Apis mellifera* L.) pests. Neem pesticides inhibited the growth of *Paenibacillus larvae* (Ash, Priest & Collins) in vitro but had no effect on the growth of *Ascophphaera apis* (Olive & Spiltoir). **Azadirachtin**-rich ext. (neem-aza) was 10 times more potent than crude neem oil (neem oil) against *P. larvae* suggesting that **azadirachtin** is a main antibiotic component in neem. Neem-aza, however, was ineffective at controlling the honeybee mite parasites *Varroa jacobsoni* (Oudemans) and *Acarapis woodi* (Rennie). Honeybees also were deterred from feeding on sucrose syrup contg. >0.01 mg/mL of neem-aza. However, neem oil applied topically to infested bees in the lab. proved highly effective against both mite species. Approx. 50-90% *V. jacobsoni* mortality was obsd. 48 h after treatment with assocd. bee mortality lower than 10%. Although topically applied neem oil did not result in direct *A. woodi* mortality, it offered significant protection of bees from infestation by *A. woodi*. Other **vegetable** and petroleum-based oils also offered selective control of honeybee mites, suggesting neem oil has both a phys. and a toxicol. mode of action. Although oils are not as selective as the *V. jacobsoni* acaricide tau.-fluvalinate, they nonetheless hold promise for the simultaneous management of several honey bee pests.

ST honeybee pesticide neem

IT Acarapis woodi
 Ascosphaera apis
 Honeybee
 Paenibacillus
 Pesticides
 Varroa jacobsoni
 (effect of neem products on honeybee pests)
 IT Margosa (Melia azadirachta)
 (ext., neem-aza; effect of neem products on honeybee pests)
 IT Fats and Glyceridic oils, biological studies
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (margosa; effect of neem products on honeybee pests)

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L50 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:429461 HCAPLUS

DN 133:131150

TI Effect of fatty acids and oils on photodegradation of **azadirachtin-A**

AU Johnson, Sapna; Patra, Dipankar; Dureja, P.

CS Division of Agricultural Chemicals, Indian Agricultural Research Institute, New Delhi, 110012, India

SO J. Environ. Sci. Health, Part B (2000), B35(4), 491-501
CODEN: JPFCD2; ISSN: 0360-1234

PB Marcel Dekker, Inc.

DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

AB **Azadirachtin-A**, on exposure to UV-light (254 nm) as a thin film on glass surface, gave an isomerized (Z)-2-methylbut-2-enoate product. Half-life of **azadirachtin-A** as thin film under UV light was found to be 48 min. **Azadirachtin-A** was irradiated along with satd. and unsatd. fatty acids, and fatty oils under UV light as thin film. Satd. fatty acid increased the rate of photodegrdn. of **azadirachtin-A**, whereas unsatd. fatty acids such as oleic, linoleic and elaidic acid reduced the rate of degrdn. Castor, linseed and olive oil accelerated the rate of degrdn., whereas neem oil showed no or little change in the rate of degrdn. of **azadirachtin-A**.

ST fatty acid vegetable oil **azadirachtin**

A photodegrdn

IT Photolysis

(effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT Castor oil

Fatty acids, miscellaneous

Linseed oil

Olive oil

RL: MSC (Miscellaneous)

(effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT Fats and Glyceridic oils, miscellaneous

RL: MSC (Miscellaneous)

(margosa; effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT Fats and Glyceridic oils, miscellaneous

RL: MSC (Miscellaneous)

(vegetable; effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT 158110-97-5

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(**azadirachtin-A** photodegrdn. product)

IT 57-10-3, Palmitic acid, miscellaneous 57-11-4, Stearic acid,

miscellaneous 60-33-3, Linoleic acid, miscellaneous 112-79-8, Elaidic acid 112-80-1, Oleic acid, miscellaneous 506-30-9, Arachidic acid 544-63-8, Myristic acid, miscellaneous

RL: MSC (Miscellaneous)

(effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT 11141-17-6, **Azadirachtin-A**

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

RE.CNT 9

RE

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IT 158110-97-5

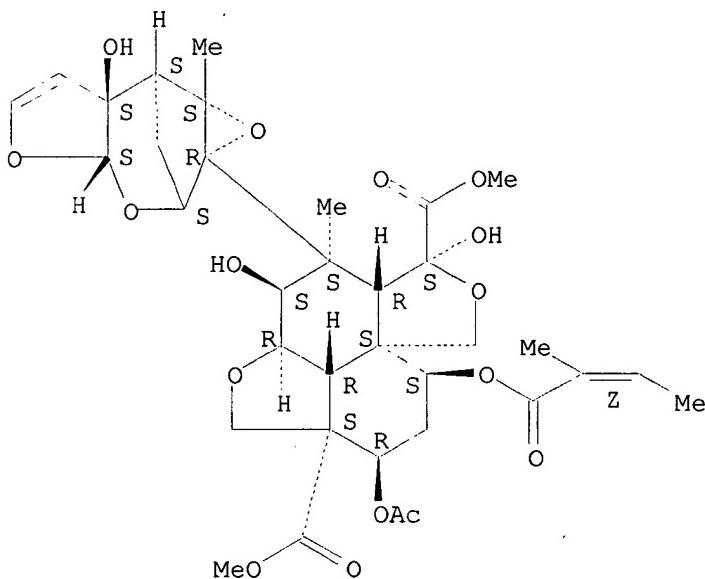
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (**azadirachtin-A** photodegrdn. product)

RN 158110-97-5 HCPLUS

CN 1H, 7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2Z)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 11141-17-6, **Azadirachtin-A**

RL: PEP (Physical, engineering or chemical process); PROC (Process)

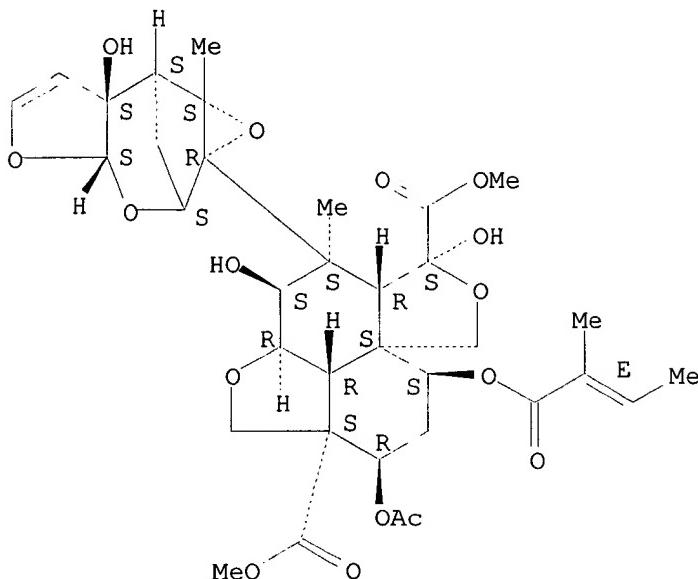
(effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

RN 11141-17-6 HCPLUS

CN 1H, 7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl

ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L50 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:134367 HCAPLUS

DN 132:233000

TI Effects of three plant extracts and achook: a commercial neem formulation on growth and development of three noctuid pests

AU Vyas, B. N.; Ganesan, S.; Raman, K.; Godrej, N. B.; Mistry, K. B.

CS Godrej Agrovet Limited, Mumbai, 400 079, India

SO Azadirachta indica A. Juss., Int. Neem Conf. (1999), Meeting Date 1996, 103-109. Editor(s): Singh, R. P.; Saxena, R. C. Publisher: Science Publishers, Enfield, N. H.

CODEN: 68RFAS

DT Conference

LA English

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 11

AB Exts. from neem (*Azadirachta indica* A. Juss.) exhibit significant control of many crop pests. M. Grainge and S. Ahmed (1988) listed nearly 2400 plant species which reportedly possess pest control properties. We evaluated the effect of methanolic seed exts. of custard apple (*Annona squamosa* L), wild castor (*Jatropha curcas* L) and mahua (*Bassia latifolia* Roxb.) vis-a-vis a com. neem formulation currently being marketed in India. This formulation is in a water-sol. powder form contg. azadirachtin, azadiradion, and nimbocinol + epinimbocinol at 300, 500 and 2000 ppm resp. These prepns. were used on three important noctuid pests (*Earias vitella* F., *Helicoverpa armigera* (Hubner) and *Spodoptera litura* F.). Different indexes for growth disruption, such as larval duration, pupal wt., percentage pupation, pupal duration and total developmental growth index, indicated that all plant prepns. affected the test larvae by either direct killing or through interference with metamorphosis. Percentage mortality for neem formulation (Achook), annona, jatropha and mahua exts. were 58, 89, 68, 21 for *E. vitella*; 100, 100, 60, 66 for *H. armigera* and 28, 44, 11 and 5 for *S. litura*, resp. In addn. to larval mortality, the exts. also reduced the larval growth and total development, prolonged larval duration to reach pupation, and lowered pupal wts., resulting in the formation of deformed individuals. The data revealed the order of effectiveness of individual plant exts. as

custard apple>neem>easter>mahua. Among the insect species examd., Helicoverpa and Earias appeared more susceptible, compared with Spodoptera. Other plant species such as custard apple can supplement neem formulations in an environmentally-friendly pest control program.

ST plant ext insecticide Spodoptera Helicoverpa Earias; **azadirachtin**
insecticide noctuid pests

IT Earias vitella
Helicoverpa armigera
Insecticides
Mahua (*Madhuca latifolia*)
Physic nut (*Jatropha curcas*)
Prodenia litura
Sweetsop (*Annona squamosa*)
(insecticidal activity of plant exts. and ahook on noctuid pests)

IT Fats and Glyceridic oils, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(margosa; insecticidal activity of plant exts. and ahook on noctuid pests)

IT **11141-17-6, Azadirachtin**
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(insecticidal activity of plant exts. and ahook on noctuid pests)

RE.CNT 23

RE

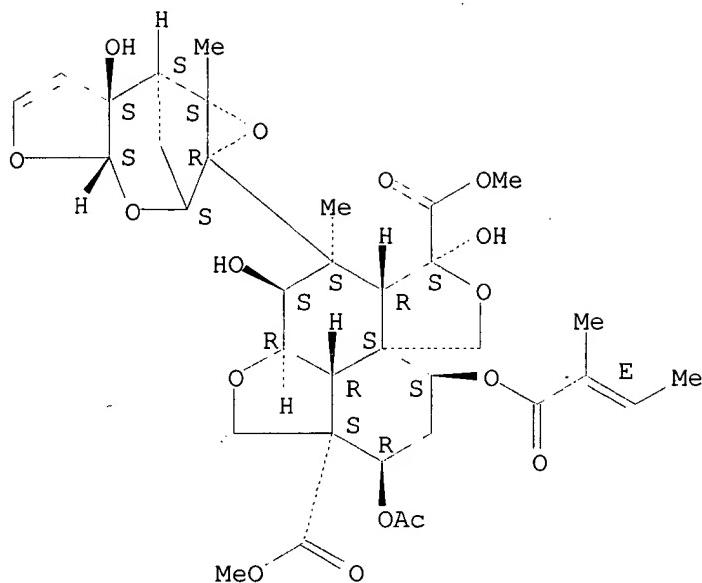
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IT **11141-17-6, Azadirachtin**
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(insecticidal activity of plant exts. and ahook on noctuid pests)

RN 11141-17-6 HCPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,
10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L50 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS
 AN 1998:710358 HCAPLUS

DN 130:77445

TI Synergistic effect of some additives on the biological activity and toxicity of neem-based formulations against the cowpea aphid, *Aphis craccivora*

AU Dimetry, Nadia Z.; El-Hawary, Fatma M.

CS Department of Pests and Plant Protection, National Research Centre, Cairo, Egypt

SO Insect Sci. Its Appl. (1997), 17(3/4), 395-399
 CODEN: ISIADL; ISSN: 0191-9040

PB ICIPE Science Press

DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

AB The effects of various concns. of Neem Azal-T and Neem Azal-T/S on the biol. and percentage mortality of adult *A. craccivora* were studied under lab. conditions. Both exts. had an aphicidal effect against the adults and significantly decreased their fecundities and longevities. Addn. of synergists such as Et oleate, **sesame oil** and DMSO improved the aphicidal effects of both insecticides. The biol. activity of Neem Azal-T/S was enhanced only with suitable additives, as they adversely affected the fecundity and longevity in comparison to the ext. alone. Addn. of CaCO₃ to the above exts. had no effect on either neem seed ext. formulation.

ST cowpea aphid insecticide neem additive synergism

IT Insecticides

(aphicides; synergistic effect of additives on the control of cowpea aphid by neem-based formulations)

IT Sesame oil

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (effect on the control of cowpea aphid by neem-based formulations)

IT *Aphis craccivora*

(synergistic effect of additives on the control of cowpea aphid by neem-based formulations)

IT 67-68-5, DMSO, biological studies 111-62-6, Ethyl oleate

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (effect on the control of cowpea aphid by neem-based formulations)

IT 11141-17-6, Neem Azal-T 176087-48-2, Neem Azal-T/S

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (synergistic effect of additives on the control of cowpea aphid by

neem-based formulations)

RE.CNT 22

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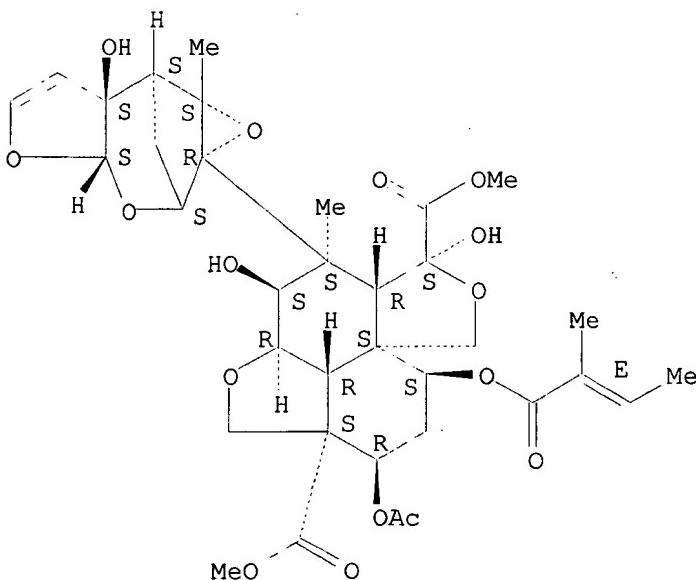
IT 11141-17-6, Neem Azal-T

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(synergistic effect of additives on the control of cowpea aphid by
neem-based formulations)

RN 11141-17-6 HCAPLUS

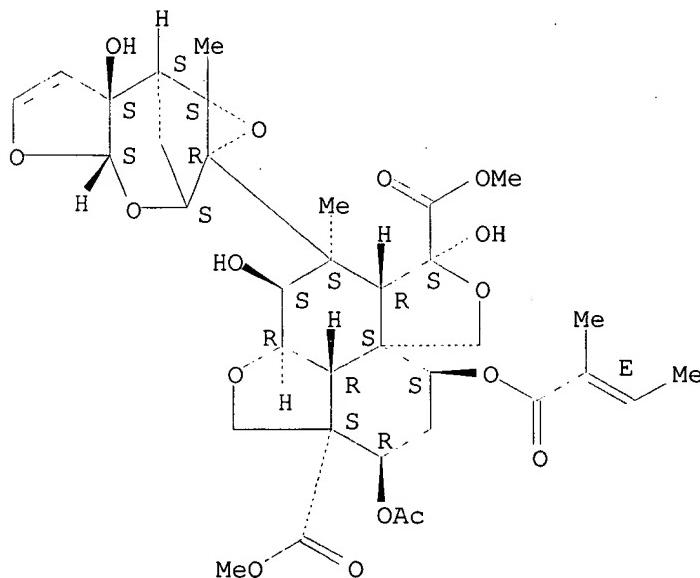
CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,
10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-
butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-
7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl
ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



TI The effectiveness of plant oils as protectants of mung bean *Vigna radiata* against *Callosobruchus chinensis* infestation
 AU Mansour, M. H.
 CS Pests and Plant Protection Dept., National Research Centre, Cairo, Egypt
 SO Pract. Oriented Results Use Prod. Neem-Ingredients Pheromones, Proc. Workshop, 5th (1997), Meeting Date 1996, 189-200. Editor(s): Kleeberg, Hubertus; Zebitz, Claus P. W. Publisher: Druck & Graphic, Giessen, Germany.
 CODEN: 64HNA8
 DT Conference
 LA English
 CC 5-4 (Agrochemical Bioregulators)
 AB Seeds of mung bean are highly susceptible to *Callosobruchus chinensis* infestation. Neem Azal-S, soybean and sunflower oils were evaluated as protectants of mung bean seeds against *C. chinensis* infestation. NeemAzal-S, at 0.5%, inflicted 100% mortality of the different stages.
 ST *Vigna Callosobruchus insecticide neem vegetable oil*
 IT *Callosobruchus chinensis*
 Vigna radiata
 (neem and plant oil protectants of mung bean against *Callosobruchus chinensis* infestation)
 IT Soybean oil
 Sunflower oil
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (protectant of mung bean against *Callosobruchus chinensis* infestation)
 IT 11141-17-6, Neem Azal
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (NeemAzal-S; protectant of mung bean against *Callosobruchus chinensis* infestation)
 IT 11141-17-6, Neem Azal
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (NeemAzal-S; protectant of mung bean against *Callosobruchus chinensis* infestation)
 RN 11141-17-6 HCPLUS
 CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,
 10-(acetoxy)octahydro-3,5-dihydroxy-4-methyl-8-[(2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.



=> e e3+all
 E1 54 --> Neem oil/CT
 HN Valid heading during volumes 126-130 (1997-June 1999)
 only.
 E2 NEW Fats and Glyceridic oils (L) margosa/CT
 ***** END***

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 CA INDEXING IS CURRENT THROUGH 7 Aug 2001 (20010807/UPCA)
 ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Aug 2001 (20010807/PD)
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>>> USPTO Manual of Classifications in the /NCL, /INCL, and /RPCL <<<
>>> fields. This thesaurus includes catchword terms from the <<<
>>> USPTO/MOC subject headings and subheadings. Thesauri are also <<<
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>>> terms from the IPC subject headings and subheadings. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs kwic tot 164

L64 ANSWER 1 OF 2 USPATFULL
 AN 2000:28024 USPATFULL
 TI Ester compounds
 IN Ujihara, Kazuya, Yokohama, Japan
 PA Sumitomo Chemical Company, Limited, Osaka, Japan (non-U.S. corporation)
 PI US 6034128 20000307
 AI US 1999-323132 19990601 (9)
 PRAI JP 1998-160437 19980609
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Davis, Brian J.
 LREP Stevens, Davis, Miller & Mosher, L.L.P.
 CLMN Number of Claims: 14
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1443
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An ester compound represented by the formula: ##STR1## wherein R is a hydrogen atom, a C._{sub.1}-C._{sub.3} alkyl group unsubstituted or substituted with one or more halogen atoms, an allyl group unsubstituted or substituted with one or more halogen atoms, or a propargyl group unsubstituted or substituted with one or more halogen atoms; and X is a hydrogen atom, a halogen atom, a C._{sub.1}-C._{sub.3} alkyl group unsubstituted or substituted with one or more halogen atoms, a C._{sub.2}

-C._{sub.3} alkenyl group unsubstituted or substituted with one or more halogen atoms, a C._{sub.2} -C._{sub.3} alkynyl group unsubstituted or substituted with one or more halogen atoms, a C._{sub.1} -C._{sub.3} alkoxy group unsubstituted or substituted with one or more halogen atoms, a C._{sub.1} -C._{sub.3} alkylthio group unsubstituted or substituted with one or more halogen atoms, or a C._{sub.1} -C._{sub.3} alkoxyethyl group containing a C._{sub.1} -C._{sub.3} alkoxy group unsubstituted or substituted with one or more halogen atoms, has an excellent pest-controlling effect.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [3,6-bis(2-chlorophenyl)-1,2,4,5-tetrazine]; Pyridaben [2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one]; Fenpyroximate [tert-butyl (E)-4-[(1,3-dimethyl-5-phenoxy)pyrazol-4-yl)methyleneaminoxyethyl]benzoate]; Tebufenpyrad [N-4-tert-butylbenzyl)-4-chloro-3-ethyl-1-methyl-5-pyrazolecarboxamide]; Polynactin complexes [tetranactin, dinactin and trinactin]; Pyrimidifen [5-chloro-N-[2-{4-(2-ethoxyethyl)-2,3-dimethylphenoxy}-ethyl]-6-ethylpyrimidin-4-amine]; Milbemectin; Abamectin; ivermectin; azadirachtin [AZAD], etc. The repellents include, for example, 3,4-caranediol, N,N-diethyl-m-toluamide, 1-methylpropyl 2-(2-hydroxyethyl)-1-piperidinecarboxylate, p-menthane-3,8-diol, and plant essential oils such as hyssop oil. . . .

DETD . . . present compounds in a mixture of 35 parts of xylene and 35 parts of dimethylformamide, adding thereto 14 parts of polyoxyethylene styryl phenyl ether and 6 parts of calcium dodecylbenzenesulfonate, and thoroughly stirring and mixing the resultant mixture.

DETD . . . present compounds 1 to 200 are obtained by mixing 20 parts of each of the present compounds, 1.5 parts of sorbitan trioleate and 28.5 parts of an aqueous solution containing 2 parts of a poly(vinyl alcohol), finely grinding the resulting mixtures to. . . .

L64 ANSWER 2 OF 2 USPATFULL

AN 95:84404 USPATFULL

TI Hydrazone derivatives, process for producing same, insecticides and/or acaricides containing same as active ingredient and intermediate compounds thereof

IN Taki, Toshiaki, Toyonaka, Japan
Kisida, Hiroshi, Takarazuka, Japan
Saito, Shigeru, Takarazuka, Japan
Isayama, Shinji, Takarazuka, Japan

PA Sumitomo Chemical Co., Ltd., Osaka, Japan (non-U.S. corporation)

PI US 5451607 19950919

AI US 1993-47490 19930419 (8)

PRAI JP 1992-131616 19920423

DT Utility

FS Granted

EXNAM Primary Examiner: O'Sullivan, Peter

LREP Birch, Stewart, Kolasch & Birch

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 3491

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There are disclosed hydrazone derivatives of the general formula [I]: ##STR1## wherein R.¹ is halogen, etc.; R.² is hydrogen or C._{sub.1} -C._{sub.6} alkyl, etc.; R.³ is hydrogen or C._{sub.1} -C._{sub.6} alkyl, etc.; R.⁴ is hydrogen or C._{sub.1} -C._{sub.6} alkyl, etc.; R.⁵ is C._{sub.1} -C._{sub.6} alkyl, etc.; R.⁶ is hydrogen or C._{sub.1} -C._{sub.6} alkyl, etc.; A is (CH_{sub.2}).sub.t, O, S(O).sub.n, etc.; a is an integer of 1 to 4; n is an integer of 0 to 2; and t is an integer of 1 to 3; as well as production processes therefor, insecticides and/or acaricides containing the same as an active ingredient and intermediate compounds thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . oxide [hexakis(2-methyl-2-phenylpropyl)distannoxane], hexythiazox[(4RS,5RS)-5-(4-chlorophenyl)-N-chlorohexyl-4-methyl-2-oxo-1,3-thiazolidine-3-carboxamide], clofentezine[3,6-bis(2-chlorophenyl)-1,2,4,5-tetrazine], pyridaben [2-tert-butyl-5-[4-tert-butylbenzylthio]-4-chloropyridazin-3(2H)-one], fenpyroximate [tert-butyl (E)-4-[(1,3)-dimethyl-5-phenoxyypyrazole-4-yl)methylene aminooxymethyl]benzoate], tebufenpyrad [N-(4-tert-butylbenzyl)-4-chloro-3-ethyl-1-methyl-5-pyrazole carboxamide], polynactins [tetranactin, dinactin, trinactin], milbemectin, avermectin, ivermectin azadirachtin [AZAD], pyrimidifen [5-chloro-N-[2-{4-(2-ethoxyethyl)-2,3-dimethylphenoxy}ethyl]-6-ethylpyrimidin-4-amine, etc.

DETD . . . of compounds Nos. 1 to 1087 (10 parts) is dissolved in xylene (35 parts) and dimethylformamide (35 parts), to which polyoxyethylene styrylphenyl ether (14 parts) and calcium dodecylbenzenesulfonate (6 parts) are added, and the resulting mixture is well stirred to give. . .

DETD Any one of compounds Nos. 1 to 1087 (20 parts) and sorbitan trioleate (1.5 parts) are mixed with an aqueous solution (28.5 parts) containing polyvinyl alcohol (2 parts), and the resulting mixture is. . .

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L78 ANSWER 1 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-275354 [29] WPIX
DNC C2001-083681
TI Use of an extract from the seed of Centratherum anthelminticum in a medicament for treatment of impetigo, acne and dermal fungal infection.
DC B04 C05 D22
IN SHAH, E
PA (SHAH-I) SHAH E
CYC 94
PI GB 2353706 A 20010307 (200129)* 21p. A61K035-78
WO 2001017539 A1 20010315 (200129) EN A61K035-78
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000070200 A 20010410 (200137) A61K035-78
ADT GB 2353706 A GB 1999-20886 19990903; WO 2001017539 A1 WO 2000-GB3383
20000904; AU 2000070200 A AU 2000-70200 20000904

FDT AU 2000070200 A Based on WO 200117539
 PRAI GB 1999-20886 19990903
 IC ICM A61K035-78
 ICA A61P017-00
 ICI A61P017-04, A61P017-10, A61P031-10
 AB GB 2353706 A UPAB: 20010528

NOVELTY - Use of an extract from the seeds of Centratherum anthelminticum in the manufacture of a medicament for treatment of impetigo, acne and fungal infections of the skin and nail is new.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for a pharmaceutical composition for use in the treatment of skin disorders and fungal infections of skin and nails which comprises the herbal extract derived from Centratherum anthelminticum, *Melia azadirachta*, and one or more *Comiphora mukul*, *Withenia somnifera* and *Triphala*, the herbal extract being dispersed in a carrier for topical application or being in the form of a dry powder for the preparation of a potable decoction, a mouthwash or nasal drops.

ACTIVITY - Dermatological; Antiseborrheic; Fungicide.

'Anjali' healing cream was formulated from ghee (3 kg), boiled water (3 l), freeze dried extract of Centratherum anthelminticum seeds (100 g) and *sesame* oil treated with a paste of 100 g Centratherum anthelminticum seeds, 100 g rose petals, 100 g *Melia azadirachta* leaves, 50 g *Casia tora* seeds and water (500 ml). Of this preparation, 20 g was tested against *Propionibacterium acnes* NCTC 737 according to British Pharmacopoeia guidelines. After 14 days, the composition showed a log reduction of 5.32.'Anjali' healing cream was formulated from ghee (3 kg), boiled water (3 l), freeze dried extract of Centratherum anthelminticum seeds (100 g) and *sesame* oil treated with a paste of 100 g Centratherum anthelminticum seeds, 100 g rose petals, 100 g *Melia azadirachta* leaves, 50 g *Casia tora* seeds and water (500 ml). Of this preparation, 20 g was tested against *Propionibacterium acnes* NCTC 737 according to British Pharmacopoeia guidelines. After 14 days, the composition showed a log reduction of 5.32

MECHANISM OF ACTION - None given.

USE - For treatment of impetigo, acne and fungal infections of the skin (claimed).

ADVANTAGE - Gives rapid healing with little scarring and without the side effects of antibiotics.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-A10; B12-M11G; B14-A04; B14-N17; C04-A10; C12-M11G; C14-A04;
C14-N17; D09-E

TECH UPTX: 20010528

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The extract may be used in conjunction with an extract from the leaves, bark or roots of *Melia azadirachta*, an extract from the seeds of *Casia tora* or an extract of *Picrorrhiza kurroa*, *Comiphora mukul*, *Withenia somnifera*, *Tinospora cordifolia*, *Asparagus racemosus* and/or *Triphala*. The powder is a spray dried powder or is topical application and includes Ghee as a carrier.

L78 ANSWER 2 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1982-34279E [17] WPIX

TI Antibacterial comprising extract obtd. from *melia azadirachta* - by extn. using organic solvent which is then washed with hydrophilic solvent, both of specified dielectric constants.

DC B04

PA (TERU) TERUMO CORP

CYC 1

PI JP 57048922 A 19820320 (198217)* 6p
 JP 59035885 B 19840831 (198439)

ADT JP 57048922 A JP 1980-124354 19800908

PRAI JP 1980-124354 19800908

IC A61K035-78

AB JP 57048922 A UPAB: 19930915

Antibacterial agent comprising an extract, as an active ingredient, obtd. by extracting cortices of *Melia azadirachta* with an organic solvent (I) having dielectric constant of up to 10 and then extracting the raffinate with a hydrophilic solvent (II) having dielectric constant of 15-35.

The extract shows antibacterial activity against gram-positive bacteria. The LD₅₀ value in mice is 1100 mg/kg (i.p.). The extract can be administered via injection route. Examples of (I) are n-hexane (1.9), benzene (2.3), chloroform (4.7) and ethyl acetate (6.0). Examples of (II) are water (20.7), ethanol (24.3) and methanol (32.6).

The extract can be suspended in saline, CMC or glucose solution. Such suspension can be used for injection. Also, the extract may be formulated into an emulsion together with liq. paraffin, **sesame** oil, peanut oil or sorbitan fatty acid ester.

FS CPI
FA AB
MC CPI: B04-A07F; B12-A01

=> fil napral
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L97 ANSWER 1 OF 1 NAPRALERT COPYRIGHT (C) 2001 BD. TRUSTEES, U. IL.
AN 92:80761 NAPRALERT
DN T02077
TI USE OF NEEM (**AZADIRACHTA INDICA A. JUSS.**) SEED AS A
FEEDING INHIBITOR AGAINST ANTIGASTRA CATALAUNALIS DUPON.
(LEPIDOPTERA, PYRALIDAE): A **SESAME** (SESAMUM INDICUM L.) PEST IN
NIGERIA
AU CHADHA S S
CS AGR RES STA, MOKWA NIGERIA
SO E AFR AGR FOR J (1977) 42 p. 257-262.
DT Journal
LA ENGLISH
OS MAPA 1:7906
CHC 740

=> fil agricola
FILE 'AGRICOLA' ENTERED AT 18:46:10 ON 07 AUG 2001

FILE COVERS 1970 TO 18 Jul 2001 (20010718/ED)

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=> d all tot

L106 ANSWER 1 OF 6 AGRICOLA
 AN 1998:42363 AGRICOLA
 DN IND21233608
 TI Integrated management of root knot nematode *Meloidogyne javanica* infecting tomato using organic materials and *Paecilomyces lilacinus*.
 AU Khan, T.A.; Saxena, S.K.
 AV DNAL (TD930.A32)
 SO Bioresource technology, Sept 1997. Vol. 61, No. 3. p. 247-250
 Publisher: Oxford, U.K. : Elsevier Science Limited.
 CODEN: BIRTEB; ISSN: 0960-8524
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 AB Amendments of oil-cakes, bone and horn meals in soil increased tomato-plant growth and reduced the nematode multiplication. Highest improvement in plant growth and reduced reproduction factor and root galling were recorded in **neem**-cake amended soil. The least effect was with **sesame**-cake. The integration of oil-cakes (except mahua-cake), bone and horn meals with *P. lilacinus*, resulted in increased plant growth and reduced population build up of nematodes and root gallings. The groundnut-cake with *P. lilacinus* was most effective. The organic amendments increased the parasitism of *P. lilacinus* on root-knot nematodes.
 CC F822 Pests of Plants, Nematods; J500 Soil Fertility, Fertilizers, and Manures
 CT biological control; cultural control; *lycopersicon esculentum*; soil amendments

L106 ANSWER 2 OF 6 AGRICOLA
 AN 97:2744 AGRICOLA
 DN IND20539750
 TI Photostabilization of the botanical insecticide **azadirachtin** in the presence of lecithin as UV protectant.
 AU Sundaram, K.M.S.; Curry, J.
 CS Natural Resources Canada, Sault Ste. Marie, Ontario, Canada.
 AV DNAL (TD172.J61)
 SO Journal of environmental science and health. Part B: Pesticides, food contaminants, and agricultural wastes, 1996. Vol. B31 No. 5. p. 1041-1060
 Publisher: New York, Marcel Dekker
 CODEN: JPFCD2; ISSN: 0360-1234
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 CC H000 Pesticides, General; K001 Forestry Related
 CT acer; **azadirachtin**; foliage; formulations; half life; persistence; phosphatidylcholines; photolysis; protectants; stabilizing; **surfactants**; ultraviolet radiation
 RN 11141-17-6 (AZADIRACHTIN)

L106 ANSWER 3 OF 6 AGRICOLA
 AN 96:23252 AGRICOLA
 DN IND20507339
 TI Deposition and bioassay of insecticides applied by leaf dip and spray tower against *Bemisia argentifolii* nymphs (Homoptera: Aleyrodidae).
 AU Liu, T.X.; Stansly, P.A.

CS University of Florida, Immokalee, FL.
 AV DNAL (SB951.P47)
 SO Pesticide science, Aug 1995. Vol. 44, No. 4. p. 317-322
 Publisher: Sussex : John Wiley and Sons Limited.
 CODEN: PSSCBG; ISSN: 0031-613X
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 AB Two application methods, spray and leaf dip, were evaluated as bioassays for insecticides to nymphs of *Bemisia argentifolii* Bellows & Perring (formerly *Bemisia tabaci* Gennadius strain 'B'). Sprays were applied at different volumes and pressures with the Potter Spray Tower. Spray deposition was evaluated using a tracer dye, and also plain water in the case of the spray tower. Coverage on water-sensitive paper was evaluated with a computerized image-scanning system. Insecticide efficacy was evaluated as mortality to whitefly nymphs. Materials assayed included 'M-Pede' (an insecticidal soap), 'Sunspray' Ultra-Fine Spray Oil (a mineral oil), 'Margosan-O' (an extracted concentration of azadirachtin + 10% neem oil), and bifenthrin ('Brigade' 10WP), a pyrethroid, with purified water as a control. Differing results were obtained with the two bioassay methods, depending on material tested. Mortality of whitefly nymphs from bifenthrin, and to a lesser extent neem extract, was largely independent of application method. In contrast, 'Sunspray' (mineral) oil, and to a lesser extent insecticidal soap, was more efficacious when applied as a dip than as a spray. Differences in respect of effects of application method on treatment mortality were attributed to differences between materials in mode of action.
 CC F821 Pests of Plants, Insects and other Arthropods
 CT application methods; azadirachtin; *bemisia*; bioassays; efficacy; insect control; insecticides; mineral oils; mortality; nymphs; surfactants
 RN 8002-65-1 (NEEM OIL)
 8020-83-5 (MINERAL OIL)
 11141-17-6 (AZADIRACHTIN)
 82657-04-3 (BIFENTHRIN)
 8002-05-9Q, 8012-95-1Q, 8020-83-5Q, 67254-74-4Q (MINERAL OILS)

 L106 ANSWER 4 OF 6 AGRICOLA
 AN 95:53985 AGRICOLA
 DN INDD20475983
 TI Estimation of azadirachtin-A content of emulsifiable and solution concentrates of neem.
 AU Azam, M.E.; Rengasamy, S.; Parmar, B.S.
 CS Indian Agricultural Research Institute, New Delhi, India.
 AV DNAL (S583.A7)
 SO Journal of AOAC International, July/Aug 1995. Vol. 78, No. 4. p. 893-896
 Publisher: Arlington, VA : AOAC International, c1992-
 CODEN: JAINEE; ISSN: 1060-3271
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 AB A column chromatographic cleanup method to remove aliphatic and aromatic solvent components and different surfactants present in formulated neem was developed. A glass column containing silica gel (6-120 British Standard Sieve) and 250 mL hexane-acetone (6 + 4) was used. Impurities interfering in the region of the azadirachtin-A peak were removed by fractional elution. Recovery of azadirachtin-A was greater than 81%.
 CC H000 Pesticides, General
 CT azadirachtin; determination; liquid chromatography; neem extracts; quantitative analysis

RN 11141-17-6 (AZADIRACHTIN)
 11141-17-6 (AZADIRACHTIN A)
 63231-67-4 (SILICA GEL)

L106 ANSWER 5 OF 6 AGRICOLA
 AN 92:92359 AGRICOLA
 DN IND92054632
 TI Efficacy of different vegetable oils as grain protectants against pulse beetle, *Callosobruchus chinensis* L. in increasing storability of pigeonpea.
 AU Khaire, V.M.; Kachare, B.V.; Mote, U.N.
 CS Mahatma Phule Agricultural University, Rahuri, Maharashtra, India
 AV DNAL (421 J829)
 SO Journal of stored products research, July 1992. Vol. 28, No. 3. p. 153-156
 Publisher: Exeter : Pergamon Press.
 CODEN: JSTPAR; ISSN: 0022-474X
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 AB Studies were carried out on the efficacy of ten vegetable oils viz., sunflower, castor, mustard, safflower, palm, groundnut, **sesame**, **neem**, karanj, and maize each applied at rates of 5, 7.5, and 10 mL/kg of grain (0.5, 0.75 and 1% v/w concentrations) as grain protectants of pigeonpea against pulse beetle (*Callosobruchus chinensis* L.). Effects on progeny emergence, loss in grain weight, and germination up to 100 days after treatment were measured. Adult emergence was completely prevented by karanj oil at 0.75 and 1% and **neem** oil at all levels up to 100 days. No emergence of adults occurred up to 66 days with castor oil at the 0.75 and 1% levels. Minimum grain loss was noted with castor, mustard, and groundnut oils at the 1% level up to 100 days after treatment. There was no adverse effect of the various oils on seed germination. **Neem**, palm and karanj oils are cheaper when compared with other oils.
 CC F851 Protection of Stored Plant Products, Insects and Other Arthropods;
 Q115 Food Storage, Horticultural Crop Products
 CT callosobruchus chinensis; insect control; pigeon peas; plant oils; seed germination; storage losses
 RN 8001-79-4 (CASTOR OIL)
 8002-65-1 (NEEM OIL)
 68956-68-3 (VEGETABLE OILS)

L106 ANSWER 6 OF 6 AGRICOLA
 AN 79:66364 AGRICOLA
 DN IND79055639
 TI Use of **neem** (*Azadirachta indica* A. Juss.) seed as a feeding inhibitor against *Antigastra catalaunalis* Dupon. (Lepidoptera: Pyralidae) a **sesame** (*Sesamum indicum* L.) pest in Nigeria.
 AU Chadha, S.S.
 AV DNAL (24 EA74)
 SO East African agricultural and forestry journal, Jan 1977 (pub. 1979) Vol. 42, No. 3. p. 257-262 ill
 Publisher: Nairobi, East African Agriculture and Forestry Research Organization
 ISSN: 0012-8325
 NTE 11 ref.
 DT Article
 LA English
 CC 4535 Insect Pests and Control, Field Crops (1972-79)
 GT Nigeria

=> d his

FILE 'HCAPLUS' ENTERED AT 18:07:06 ON 07 AUG 2001

L1 710 S AZADIRACHTIN?
L2 116 S AZADIRACHTIN? A
L3 17 S AZADIRACHTIN? B
L4 911 S SORBITAN (L) TRIOLEATE
L5 283 S L4 (L) (PEG OR POLYOXYETHYLENE OR POLYETHYLENEOXIDE OR POLYOX
L6 77 S L4 (L) (POLYETHYLENEGLYCOL OR POLYETHYLENE GLYCOL OR POLY ETH

FILE 'REGISTRY' ENTERED AT 18:09:58 ON 07 AUG 2001

L7 2 S 11141-17-6 OR 95507-03-2
E AZADIRACHTIN/CN
L8 12 S E3,E4,E6-E16
L9 12 S L7,L8
L10 70 S (16458.1.3 AND 36597.1.3)/RID
L11 64 S L10 NOT L9
SEL RN L7
L12 16 S E1-E2/CRN
L13 18 S L7,L12
L14 58 S L9,L11 NOT L13
L15 1 S 9005-70-3

FILE 'HCAPLUS' ENTERED AT 18:13:51 ON 07 AUG 2001

L16 680 S L15
L17 448 S TWEEN 85 OR EMSORB OR POLYSORBATE 85
L18 1007 S L5,L6,L16,L17
L19 753 S L1-L3,L13
L20 80 S L14
L21 1 S L18 AND L19,L20
E VEGETABLE OIL/CT
E E10+ALL
L22 1508 S E1
L23 3436 S E2
L24 19368 S VEGETABLE (L) OIL
L25 3610 S SESAME (L) OIL
L26 583 S SESAME (L) OIL (L) SEED
L27 7 S L19,L20 AND L22-L26
L28 0 S L27 AND (SURFACTANT OR SURFACE ACTIVE)
L29 1 S L27 AND EPOXIDE
L30 8 S L21,L27,L29
E DAMARLA S/AU
L31 1 S E4
E SRIDHAR S/AU
L32 203 S E3,E4,E11,E12
E RAMAN K/AU
L33 204 S E3-E16
E GOPINATHAN M/AU
L34 6 S E3,E5,E8
E MAMBULLY /AU
E CHANDRASEKARAN/AU
L35 6 S E26,E29
L36 98 S E49
E KRISHNASAMI/AU
E SRINIVASA/AU
L37 6 S E3
L38 7 S E56
E SREENIVASA/AU
L39 4 S E21
E RAO/AU
L40 1 S E3
E RAO D/AU
L41 48 S E3
L42 53 S E114
L43 2 S E132
L44 13 S E134
E RAO DAMARLA/AU
E RAO S/AU

L45 102 S E3
L46 3 S E30
E RAO SREEN/AU
L47 7 S E4-E7
L48 1 S L19,L20 AND L31-L47
L49 1 S ?AZADIRACH? AND L31-L47
L50 9 S L48,L49,L30

FILE 'HCAPLUS' ENTERED AT 18:25:43 ON 07 AUG 2001
SEL HIT RN L50

FILE 'REGISTRY' ENTERED AT 18:26:03 ON 07 AUG 2001
L51 14 S E1-E14

FILE 'HCAPLUS' ENTERED AT 18:27:29 ON 07 AUG 2001
L52 0 S L18 AND NEEM
L53 42 S L18 AND L22-L26
E NEEM/CW
L54 54 S E3
E NEEM/CT
L55 54 S E5
E E5+ALL
L56 152 S E2
L57 1162 S MARGOS?
L58 1 S L18 AND L54-L57
L59 1 S L58 AND L19,L20
E NEEM OIL/CT
E NEEM OIL/CT
E E3+ALL

FILE 'USPATFULL' ENTERED AT 18:30:44 ON 07 AUG 2001
L60 234 S L19,L20
L61 254 S ?AZADIRACH?
L62 259 S L60,L61
L63 3238 S L18
L64 2 S L62 AND L63
L65 70 S L62 AND (NEEM OR MARGOS?)
L66 13275 S SESAME (L) OIL
L67 0 S L64 AND L66
L68 0 S L64 AND L65

FILE 'USPATFULL' ENTERED AT 18:33:39 ON 07 AUG 2001

FILE 'WPIX' ENTERED AT 18:33:53 ON 07 AUG 2001
L69 143 S L1-L3,L61
E AZADIRACH/DCN
E E4+ALL
L70 152 S E2 OR L69
L71 300 S L4-L6,L17
E POLYSORBATE/DCN
E SORBITAN/DCN
E E12+ALL
L72 80 S E2
L73 152 S L69,L70
L74 0 S L71,L72 AND L73
L75 2 S L73 AND SESAME
L76 160 S MARGOS? OR L73
L77 2 S L76 AND SESAME
L78 2 S L75,L77
L79 0 S L78 AND L71,L72
L80 0 S L78 AND SURFACTANT
L81 0 S NEEM AND L71,L72

FILE 'WPIX' ENTERED AT 18:39:13 ON 07 AUG 2001

FILE 'HCAPLUS' ENTERED AT 18:39:30 ON 07 AUG 2001

L82 E MARGOS/CW
923 S E4
E MARGOS/CT
E E4+ALL
L83 653 S E1
E E2+ALL
L84 270 S E8+NT
L85 1109 S MARGOSA
L86 1109 S L82-L85
L87 1 S L86 AND L18
L88 0 S L87 NOT L50,L59

FILE 'NAPRALERT' ENTERED AT 18:41:06 ON 07 AUG 2001
L89 147 S L1,L2,L3,L13,L14
E MARGOS
L90 23 S MARGOS?
E NEEM
L91 189 S E3
L92 312 S L89-L91
L93 1 S L92 (L) SESAME
L94 651 S L92 OR AZADIRACH?
L95 1 S L94 (L) SESAME
L96 0 S L94 (L) VEGETABLE (L) OIL
L97 1 S L93,L95

FILE 'NAPRALERT' ENTERED AT 18:43:46 ON 07 AUG 2001

FILE 'AGRICOLA' ENTERED AT 18:43:58 ON 07 AUG 2001
L98 1135 S L94
E AZADIRACH
L99 896 S E4-E12
E NEEM
L100 735 S E3
E MARGOS
L101 45 S E3-E8
L102 1137 S L98-L101
L103 0 S L18 AND L102
L104 3 S SURFACTANT AND L102
L105 3 S L102 AND SESAME
L106 6 S L104,L105

FILE 'AGRICOLA' ENTERED AT 18:46:10 ON 07 AUG 2001